



40th Annual
Trenton Computer Festival
 The Oldest Personal Computer Show in the World
 The College of New Jersey
 Ewing, New Jersey

2015 PROGRAM BOOK

Education Building

Talks, Forums, Vendor Fair & Flea Market
Saturday, March 21 - 9:00 am to 5:00 pm
 Talks/Forums start at 10:15 am
 Sarnoff Museum Tours - 9:00 am to 3:00 pm

<<<< **TCF Banquet 6:00pm** >>>>

Speaker: Dan Rosenbaum

Technology Journalist "Wearable Tech Insider"

Room 202W, Brower Student Center

\$25 - Purchase tickets at Speaker Registration Table

Sponsored by: The College of New Jersey (TCNJ) Electrical/Computer Engineering Department – www.tcnj.edu/~engsci/
 With the support of

IEEE Princeton/Central Jersey Section (PCJS) – ewh.ieee.org/rl/princeton-centraljersey

ACM/IEEE-CS – Joint Princeton/Chapters of ACM and IEEE Computer Society – princetonacm.acm.org

NYACC – New York Amateur Computer Club – www.nyacc.org

ACGNJ - Amateur Computer Group of New Jersey - www.acgnj.org

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Special Exhibits & Demos

ED Building - First and Second Floor Lobbies:
Demos and Poster Presentations on Quadcopters,
Robotics, Technology, Vintage Computers,
Digital Photos & Club Exhibits

RWH 2nd Floor: Sarnoff Museum & 3D Printers

WiFi SSID Guest-at-TCNJ3, login guest1030, password Sugaju2y

TCF Keynote Speaker

Dan Rosenbaum

Technology Journalist "Wearable Tech Insider"

Approaching Singularity

The incredible opportunities awaiting us

2:35 pm in Room ED-115

Twitter hashtags for TCF: #tcf and #tcf2014

Get a Ham Radio License in One Day!

Sponsored by the David Sarnoff Radio Club <www.n2re.org>

If you wanted to get an amateur radio license but never had the time, now is your opportunity! The FCC has changed the rules so that no Morse Code proficiency is required. To obtain the entry-level Technician license, all one has to do is pass a multiple-choice exam. With a Technician Class License, one may participate in Amateur Radio and enjoy privileges for operation on the HF amateur bands, use of VHF&UHF repeaters, participation in local Amateur Radio Emergency Services (ARES), the annual American Radio Relay League (ARRL) Field Day, and many other activities. We will be holding a three-session **"HAMCRAM 101" in ED-103** from 9:00 am to 12:30 pm, and a practice exam at 1:30 pm. The course will provide participants with an overview of the requirements needed to pass the FCC Technician License exam. At 3:30 pm the FCC examination will be given by ARRL-certified Volunteer Examiners (VEs). One does not have to attend the HAM CRAM 101 or pay for admission to TCF to attend the exam session. An exam fee (\$15.00) must be paid by each examinee. Two forms of identification (at least one must have your photograph) will be required to take the exam. All license exams will be offered (Technician, General and Extra) at this testing session. If upgrading, bring an original and a photocopy of your current license. Results of your test will be provided after the exam session is completed. The slides and material for the ham cram can be found at: <https://drive.google.com/folderview?id=0B8LbPwo1XLI3YTBdZlFmTTNBQzA&usp=sharing>. A truly wonderful and free study guide can be found at <http://www.kb6nu.com/tech-manual/>. Online practice exams are also of great benefit, <http://qrz.com/hamtest/>.

***** 10:15 am to 11:10 am *****

ED-115: Bitcoin - Digital Currency for the Future or the Past?, Don Libes, NIST

Abstract: Is crypto-currency the future? Or just another bubble waiting to pop? Learn about Bitcoins - the implementation, the potential, and the risks.

Bio: Don Libes is a computer scientist at the National Institute of Standards & Technology, where he does research on Smart Manufacturing. He has written three books: *Exploring Expect, Obfuscated C and Other Mysteries*, and *Life with Unix*.

ED-211: Software Development Apprenticeships: Closing the Skills Gap by Investing in Potential, Kyle Thomas & Catherine Jaros

Abstract: Finding technology talent is one of the more difficult aspects of growing a technology dept. Surveys suggest as much as 95% of hiring managers have difficulty filling open positions. In competitive markets, talented developers generally have multiple offers at any given time and it is a "seller's market" from their point of view. New developers can require significant training in the tools and processes of the trade. Many leave school never having used tools such as version control and haven't written code that needs to not just give correct output but must also be maintainable. While there is an apparent shortage of developers, there is no shortage of people excited to learn the skills to start a new career in programming as evidenced by the growing popularity of development bootcamp type programs.

In our presentation we introduce the apprenticeship model as a method of filling software development positions. Our program uses short talks and challenging exercises, coupled with highly available mentors and actual production projects to train developers in the tools and processes our company uses. After only a short time the apprentices were able to begin contributing to projects and quality code that met our standards. The initial investment of time from senior developers was recouped by the availability of inexpensive, but high quality development hours for program. We will discuss recruitment, curriculum design, implementation and results/future improvements.

Bio: Kyle Thomas runs the software development department for Brighton Cromwell and is co-founder of EggZack.com. His current work focuses on the development and implementation of processes and technologies that improve the software development process. He graduated from the University of Delaware in 2012 with degrees in physics and chemical engineering. Kyle has done research on distributed computing, computational pharmacokinetics and routing protocols. He has given talks and authored papers on computational physics, self-adaptive/self-organizing systems and swarm intelligence.

Bio: Catherine Jaros is a Human Resources Generalist who solely runs the recently implemented Human Resources Department at Brighton Cromwell. She has years of diverse human resources and management experience working in the fields of healthcare, international and national staffing, retail and now the defense industry. Her areas of expertise include recruitment, onboarding, performance management, staff development, employment law, employee relations, compliance issues, unemployment and leaves of absence. She is a member of the National Society for Human Resources Management (SHRM) and is currently in pursuit of being certified as a Professional in Human Resources (PHR). Catherine is fluent in Polish and graduated Seton Hall in 2008 with a degree in English and minor in French, with a strong initial focus on Diplomacy and International Relation studies

ED-209: Embracing Naming Conventions and File Structures to Improve Digital Organization, John LeMasney, Consultant

Abstract: Many complain of having trouble finding files or discovering content that they clearly remember putting on the machine in front of them. This is a highly solvable problem when you apply naming conventions to files and folders on your machine. People who attend this workshop will be able to determine the best way to name files, structure directories, and find content on their computer's file system with the end result of saving time, avoiding frustration and being more productive.

Bio: John LeMasney is a speaker, technologist, designer, developer and independent consultant working in New Jersey. He was the Manager of Educational Technology Training and Outreach at Princeton University from March 2011 to March 2013. He had worked from 1998-2011 at Rider University as the Manager of Technology Training. He was recently awarded a Master of Arts in Organizational Leadership with honors from Rider University and a Bachelor of Fine Arts in Sculpture with honors from the University of the Arts in Philadelphia, PA. He is a designer, artist, writer, poet, technologist, consultant, open web advocate and open source evangelist.

FH-403 (moved from ED-208): Workshop - Introduction to Programming in the Cloud, Peter J. DePasquale, The College of New Jersey

Abstract: Cloud computing is among the hottest buzzwords in technology today, and holds great promise for how products and services are offered to the world via the Internet. This workshop will provide an introduction to the terminology associated with cloud computing, as well as provide a hands-on experience with several of Amazon.com's offerings in the cloud space. We will also discuss other cloud computing vendors and their offerings. Learn how you can start to leverage the cloud for your personal computing as well as for corporate/professional computing needs. Attendees will utilize TCNJ lab facilities and need a working knowledge of UNIX, SSH, and Java. Laptops are welcome in the lab, and if you are more comfortable working on your machine, please bring it along - (please pre-install an SSH client, Java, and the Apache Ant build tool for Java before arriving)! **This is a hands-on workshop! Lab space is limited to 24 existing stations.** We can add a few more folks with personal laptops.

Bio: Peter DePasquale is an Associate Professor of Computer Science at The College of New Jersey. He holds a Ph.D. and Masters in Computer Science from Virginia Tech and a Masters and Bachelors in Computer Science from Villanova University. His areas of research interest include cloud computing, computer science education and web application development. His work often explores the practical application of computer science principals in the creation of tools to assist in the introductory programming sequence. He is the author of two programming language reference guides and co-author of two introductory programming textbooks.

ED-207: GPS Secrets, Cass Lewart, Freelance Writer

Abstract: There is more to a GPS than a pleasant voice telling you to turn right on Cedar Street, and a color display of adjacent ramps and intersections. I will cover the following subjects in my talk: 1) Technical background and implementation of current GPS systems; 2) How user location is derived from precise atomic clocks on satellites, and from an imprecise clock in your GPS receiver; 3) Capturing and analyzing the data stream coming from the GPS, and sending commands directly to the GPS; 4) Secret key codes (*jail breaking*) that allow changing base maps on the GPS, a practice frowned upon by GPS manufacturers; 5) How GPS enabled devices, including cell phones, impact on your privacy; 6) Using a GPS for Geocaching, a modern version of treasure hunting; 7) Review of currently available GPS devices; and 8) Modification of the built-in GPS vocabulary.

Bio: Cass Lewart is an electrical engineer, a long time hobbyist, and author of several books on computer programming, modems and programmable calculators. Cass also has written many electronic project articles. Every year he gives talks at the Trenton Computer Festival on GPS, HDTV, database programming and other subjects. Cass and his wife Ruth were joint recipients of the 2005 Hobbyist of the Year award from the Amateur Computer Group of New Jersey (ACGNJ). They are former presidents of the Brookdale Computer Users Group (BCUG). He is a graduate of the Swiss Federal Institute of Technology and worked at Bell Labs and Unisys.

ED-206: Getting Started With PCs, Pads and Tablets, Including the Internet and Digital Photography, Herman Hinitz, Hinitz Photography

Abstract: This session is designed for the beginner, people who would like to use a PCs/pads for word processing, electronic spreadsheets, graphics, Internet (browsers), databases, antivirus programs, firewall programs, digital photography, etc., but are unsure how or where to begin. Appropriate examples would be used with MS Office, etc. (Also, see a digital photography display in the building lobby area for related information and examples).

Bio: Herman Hinitz has used diversified software and hardware in research, consulting, publications, and digital photography. Some of his work has been included in commercially available books, professional publications, fine art collections, and gift shops. He is a long time supporter of TCF.

ED-113: Satellite Reception Made Easy with FTA, Mario Filippi, ARRL

Abstract: Geostationary satellites orbiting the Clarke Belt located 22,600 miles in space are a copious source of international information and entertainment for anyone interested in setting up their own Ku-band Free to Air Satellite system. For a minimal investment one can travel the world via satellites such as Telstar-12, Hispasat, Galaxy-19, SES-2, Intelsat-14 and SatMex-6 using a 30 inch dish along with a High Definition set-top box. Using FTA satellite will allow one to receive free international television and radio broadcasts from distant lands such as Central/South America, the Caribbean, Middle East, Far East, and parts of Europe. Want to find out what's happening in Israel, Cuba, the Vatican, Morocco, Angola, Equatorial Guinea, Chad, Kuwait, Myanmar, Thailand, China, Saigon, and maybe Lithuania? FTA satellite is your ticket to adventure.

Bio: A short wave, ham, satellite, and scanning enthusiast since the 1960's,

Mario (N2HUN) is a graduate of St. John's University and is employed in the medical, pharmaceutical, and public health sectors for the past 4 decades. He is Public Health Investigator and has written articles for Monitoring Times Magazine, The Spectrum Monitor magazine, TeleAudioVision magazine, and was one of the authors of two scientific articles in the field of Skin Biology.

ED-112: Eighty Years of Computer Hobbyists (and New Jersey's role), Evan Koblentz, Mid-Atlantic Retro Computing Hobbyists (MARCH)

Abstract: Attendees will get a whirlwind tour of the computer hobby covering 1936 through 2015. There will be a special focus on milestones from the Garden State.

Bio: Evan Koblentz is a computer historian and President of MARCH. He often lectures and writes about computer history, and is a go-to source for the mainstream media. His favorite computer is a MOBIDIC. He is also a marathon runner and therefore *a little crazy*.

ED-109: Workshop on Android Apps, Barry Burd, Drew University

Abstract: Android is the operating system underlying many of Google's hardware technologies. First and foremost is the Android phone. But the list of Android devices also includes Android Wear (wristwatches), Android TV, Google Glass, Android Auto, and others. In this session, I'll show you how to get started creating Android apps.

Bio: Barry Burd is a professor of Mathematics and Computer Science at Drew University in Madison, NJ. He is the author of several articles and books, including *Java For Dummies*, *Android Application Development All-in-One For Dummies*, and *Java Programming for Android Developers For Dummies*, all from Wiley Publishing. He received an M.S. degree in Computer Science at Rutgers University and a Ph.D. in Mathematics at the University of Illinois.

ED-107: Arduino Developers Workshop, Bill French, Rick Anderson, Brian Boccardi, Phil Gillhaus, FUBAR Labs

Abstract: A day long Arduino tutorial and users meeting. We will start out with an intro to Arduino, followed by a beginners Arduino hands on class. We then have an open *hack* period and finally have a developers' round table.

Bio: Bill French is the President for FUBAR Labs. Besides hacking, Bill's interests include silk screening, electronics, Arduino, Netduino, CNC Controls, and circuit board creation. He has an A.S. in Computer Science and is the Director of Telecommunications, Network, and Support Services for the Princeton Theological Seminary.

Bio: Rick Anderson is President of Fair Use Building and Research (FUBAR) Labs, a *hackerspace* in Highland Park, NJ. He has worked to provide programs on soldering, basic electronics, Arduino and 3D printing to the New Jersey community. Arduino is an Open Hardware project used by artists and engineers around the world. He is also part of the official Arduino testing team. In 2011, he participated in the Global Game Jam and created the first third party game for the Microtouch Open Hardware Game Platform, Heat Death, <http://globalgamejam.org/2011/heat-death-microtouch>.

Bio: Brian Boccardi has presented at TCF for many years. He is a member and trustee of FUBAR Labs, and holds the amateur radio callsign N2MPM. He works with the NJ state office of emergency management. He also teaches electronics, Arduino and soldering.

Bio: Phil Gillhaus is the Treasurer at FUBAR Labs, where he spends his time teaching classes and tinkering with electronics, micro-controllers, lasers, machine tools, and toy guns. Phil has provided instructional support for programs in computer literacy, web design, and course management software at Brookdale Community College and Rutgers University, and is currently working in the K-12 division of MAXIMUS.

ED-105: OOP University; Introduction to Object-Oriented Programming and Design Principles, Scot Jenkins (for Mike Redlich), ACGNJ

Abstract: Object-Oriented Programming (OOP) is a programming paradigm that models real-world objects. The most well-known and widely-used OOP languages are C++ and Java, but some languages, such as Simula-67, were around much earlier. The advantages of OOP over structured programming include modularity and code re-use. As OOP has evolved over the years, things such as design patterns and principles have guided developers to write apps that are more adaptable to modification. This presentation will introduce OOP, its basic attributes (encapsulation, abstraction, inheritance, and polymorphism), the class mechanism, and some design principles that have led to the development of design patterns. Example C++ and Java source code will be reviewed to demonstrate the features of OOP and design principles.

Bio: Scot Jenkins is an avid Unix user. He was a Unix consultant in MN where he co-founded the Twin Cities Linux User Group. Scot is now on the ACGNJ Board of Directors and has a BA in CS from the Univ. of N. Iowa.

*****11:20 am to 12:15 pm*****

ED-115: Workshop: Learn the Tools to Keep Your Computer Bug Free & Tricks and Tips on using Windows 8.1, (and preview of Windows 10) Robin Kessler, R&D Internet Associates

Abstract: This workshop will tell you how to keep your computer and yourself safe on the Internet. I will talk on computer safety, what antiviruses and antispyware programs are out there, and how to surf safely. I will give tips on using Windows 8.1, tell you how to make it look more like Windows 7, and give out brochures on Windows 8 and Microsoft Office 365/2013. I will also discuss why it is important to back up your computer. A fully licensed copy of Windows 8 Pro, Microsoft Office Pro 2013, and Second Copy Backup Software, as well as Malwarebytes Pro, and Startisback will be raffled off (all the prizes are free) – you must attend to win.

Bio: Robin Kessler has developed programs to help members of her community understand how computers affect their lives by teaching and giving seminars on how to use a computer; taking away the fear of the unknown. Robin works with various companies to test software and operating systems prior to their release to the public through her association with R&D Internet Associates, a company that repairs, helps clients purchase computers, and teaches clients how to use their computers. Most of her clients are in the 48+ age range. She gives beginner classes and seminars on learning how to use Windows 7 and 8 to various organizations in and around Central NJ. She also gives seminars at libraries, adult committee centers, non-profit organizations and businesses.

ED-211: Expressing HIPAA Legal Rules as Privacy Policies, Tariq Alshugran and Julius Dichter

Abstract: Healthcare software applications are designed to collect, store, and manage patients' personal and medical information. Such applications are required to maintain the patients' privacy and to comply with the privacy laws and regulations. In the United States, patients' privacy is protected with federal regulations, more specifically the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and its amendments. To guarantee compliance with HIPAA, the software application must have a decision engine which should be consulted before any operation is carried on the patients' information to determine the operation validity and compliance. This decision engine will use HIPAA privacy rules in the decision making process which triggers the need to formally expressing HIPAA privacy rules in the form of formal privacy policies.

Bio: Tariq Alshugran is a Ph.D. candidate of Computer Science and Engineering at the Univ. of Bridgeport. He received his B.Sc. in Computer Information System from Jordan Univ. of Science and Technology in 2004 and M.Sc. degree in Computer and Information Science from the Univ. of Michigan in 2007. Tariq research interests lie in the broad area of Data Privacy, Data Modeling, Legal Software Systems and Case Management, Web Services and Service-Oriented applications. Tariq is a Senior Software Engineer; architecting and implementing software for Legal software systems, document and content management systems, and web applications.

Bio: Julius Dichter is an Associate Professor in the department of Computer Science and Engineering at the University of Bridgeport in Connecticut. He received his M.S. degree from the University of New Haven and the Ph.D. from the University of Connecticut in the area of parallel computing optimization. His research interests include parallel and distributed system performance, algorithms and object-oriented systems. Julius Dichter is a member of IEEE, ACM, and ISCA.

ED-209: Stock Market Timing Using Artificial Neural Networks, Donn Fishbein, Nquant.com

Abstract: Timing financial markets is essential in order to maintain a consistent rate of return. Buy and hold strategies work well only when the markets are headed north. Market downturns can be rapid and severe, and take years to recover from. This talk will first discuss why market timing is a necessary strategy. Next will follow an introduction to artificial neural networks and genetic algorithms, and their application to technical analysis. A practical system for timing the markets using these tools will be introduced. Finally, methods to test and prove a trading system valid will be discussed.

Bio: Donn Fishbein, MD, PhD, is a physician and scientist who has investigated and traded the financial markets for 25 years. His main area of interest is mathematical systems with biological roots. For the past 15 years, his focus has been on hybrid artificial neural network and genetic algorithm systems, both for end-of-day trading and more recently for day trading systems. He has lectured on these subjects, describing profitable systems for trading equities, exchange traded funds, and index futures. He contributes trading signals to a neural net trading website. He offers consulting and private development of trading systems based on these technologies.

FH-403 (moved from ED-208): Programming in the Cloud, Continued

ED-207: TCF@50, Allen Katz, TCNJ

Abstract: This talk will review TCF's history, and discuss the future of computing. What will the world be like at TCF@50 in 2025? Pictures will be shown from the first and other notable TCFs. Audience participation, particularly from other PC Pioneers will be encouraged.

Bio: Allen Katz is a professor of Electrical and Computer Engineering at The College of New Jersey. He is a co-founder of the Trenton Computer Festival and has been the festival's director for more than 20 years. He has more than 25 years of experience in the microwave, satellite and computer industries. He holds 17 patents and has authored more than 100 technical publications. He is founder and President of Linearizer Technology, Inc. He has been a licensed Radio Amateur since 1956. He received the ARRL Technical Merit Award in 1976, the John Chambers Award in 1982, an IEEE Centennial Medal in 1984, the Martin Marietta Astro Inventor of the year award in 1993, and in 2002 the William Randolph Lovelace II Award for outstanding contributions to space science and technology. He is a Fellow of the IEEE.

ED-206: Best Websites and Search Engines 2015, Eva Kaplan, Consultant in Computer Education, STEM, and Photogenetics and Chromotherapy

Abstract: With the Internet walloping more of your time, TCF's Web Guru will update you, steering you to an ever growing number of the coolest and newest websites. These websites will definitely have you immersed in more expansive experiences than just social networking! Eva will also discuss browsers, and new and alternative search engines, directories, and research and professional networking sites - even incorporating within her presentation trends currently happening in our online digital world!

Bio: Eva Kaplan has been with TCF since 1976. During her 30 years as the founder/director of Computers + Kids, her approach has epitomized the concept of today's STEM. Eva has been a school IT administrator, given professional development courses, and has been a consultant to schools - especially in using computers for both G & T and special needs education. Eva will be introducing her upcoming website. Contact: evalkaplan@cs.com.

ED-113: Building and Using an Inexpensive "Scalar Network Analyzer", George Heron, NJQRP Club

Abstract: When designing and optimizing electronics projects, radio hams and electronics experimenters can often benefit by knowing how antennas, crystals, or L/C filter networks are performing. Better understanding how well an antenna is tuned, the motional characteristics of a crystal, and the exact roll-off frequency of a low pass filter can often help make the project successful. In this session, you will learn how to build an inexpensive Scalar Network Analyzer (SNA) using readily available parts to make these measurements, and many more. A live demonstration will be done for the SNA measuring a handful of common components and circuits. SNA plans, component sources and other resources will be provided for all attendees.

Bio: George Heron heads up education and mentorship at LifeJourney, a Baltimore-based company that inspires America's students through skills development, career exploration, and linkages with national workforce needs. His passion is for inspiring students to follow paths in STEM education and explore technology careers, and he regularly participates in youth training events and technology education-based initiatives in the mid-Atlantic Region. He is an active participant in America's *Maker Movement*, and provides a specialization in cybersecurity, software, and electronics, and excels in skills mentoring for high school students. George has been in ham radio (N2APB) for 4 decades, with strong interests in designing and building computerized radios for digital com using Software Defined Radio technologies.

ED-112: ENIAC and the First TCF Keynote Speech, Evan Koblentz, Mid-Atlantic Retro Computing Hobbyists (MARCH)

Abstract: ENIAC, the Electronic Numerical Integrator and Computer, was not the first computer. But, that doesn't make it any less important. There are many myths and falsehoods that people think are true about this computer. Learn what really happened, why it happened, where it fits into history, and how it impacts the present.

Bio: See ED-112 at 10:15 am

ED-109: Workshop on Android App Development, continued

ED-107: Arduino Workshop, continued

ED-105: OOP University, Getting Started with C++, Scot Jenkins (for Mike Redlich), ACGNJ

Abstract: C++ is an object-oriented programming (OOP) language created by Bjarne Stroustrup at AT&T Labs that was first introduced to developers in 1985. It is one of the most popular programming languages and is usually the language of choice for applications such as systems software, device drivers, embedded software, and high-performance client/server applications. This presentation will introduce the C++ programming language, provide a brief overview, how to get started, review some C++ keywords, introduce the C++ class mechanism, and review a small, working C++ application. Since knowledge of OOP is vital in the development of robust applications, the OOP paradigm will also be introduced along with a brief discussion of the advantages of OOP over structured programming. An example C++ app will demonstrate how the attributes of OOP are utilized within C++ classes.

Bio: See OOP University ED-105 at 10:15 am.

*****12:25 pm to 1:20 pm*****

ED-115: Workshop on Bug Free Computers, continued

ED-211: New Breed of Spreadsheet Computing, Enzo Alda, Lakebolt Res.

Abstract: When first introduced in the early 80s, spreadsheets played a critical role in the personal computing revolution. Today, 32 years after the debut of Visicalc on the Apple II, spreadsheets are still the tool of choice for many tasks. If we regarded spreadsheets as programming environments - which they are, from a theoretical perspective - the language of MS-Excel formulas would be considered the most popular programming language in the world. This is somehow unfortunate, because spreadsheets still have many fundamental shortcomings that have plagued them since inception, making them error prone and unsuitable for serious programming tasks, for instance: lack of functional abstraction, poor support for data structures, and lack of suitable validation systems. This talk demonstrates that it is possible, and desirable, to generalize spreadsheets by following commonly accepted principles in programming language design. Specific business cases, from various sectors, will be presented, showing how the resulting programming paradigm allows for a smooth learning curve transitioning from simple to advanced programming tasks. The talk will also show why spreadsheets naturally lend themselves to parallelization and are particularly suitable for analyzing and transforming data in real-time.

Bio: Mr. Alda is the founder of Lakebolt Research, a technology incubator devoted to the development of real-time data analysis tools. Prior to founding Lakebolt Research, Mr. Alda worked at Google, contributing to the evolution of Google Spreadsheets, and Bloomberg LP, where he conceived and implemented the high performance interpreter that powers real-time calculations in the Bloomberg terminal. In 1998, Mr. Alda was awarded US patent 5,812,753 for his invention of the "instant RAID 5" initialization algorithm. Prior to coming to the United States, Mr. Alda was a university professor in Latin America, lecturing courses in compiler construction and programming language design. He holds B.S. and M.S. degrees in Software Engineering and Computer Science respectively, as well as an MBA from The Wharton School of Business. Mr. Alda joined the IEEE in 1999.

ED-209: Internet Job\$\$\$, Donald Hsu, Dominican College

Abstract: The stocks of Apple, Disney, Expedia, Google, LinkedIn, Oracle and Priceline are up. Yes, the economy is back. Retirees are going back to work! Eighty percent of people have jobs from the Internet. Accounting needs 2.1 million by 2019 (Forensics, QuickBooks, PeachTree, MS Dynamics); application developers (C++, Java, C#) - thousands of jobs, but no applicants; cloud computing (Amazon, Dropbox, IBM, Microsoft, Salesforce, VMWare, Virtualization); database (MS Sql server, Oracle 11g, SAP, Data Warehouse), starting at \$85,000; networking (Cisco, Info Security, A+, Network+, CIEE, CISSP); systems (Unix, Linux, Window 7/8); Analytics (IBM RSA, IBM SPSS, SAS), Social Media Manager (FaceBook, Twitter, Pinterest, Shutterstock), Business Intelligence (Project/Product Manager, Global Finance, Sales/Marketing of Tech Product/Services). Computer majors are down 50 to 80% in US universities. This means more jobs for you and me. Bring a resume and get a free critique from the speaker.

Bio: Donald Hsu, PhD is a professor at Dominican College and President of the Chinese American Scholars Assoc. (CASA). He has trained/taught 70 subjects, Accounting to Unix to >11,000 clients/students at AT&T, Bank America, Ford, Goldman Sachs, IBM, JPMChase, Mercedes Benz, Microsoft, Morgan Stanley, Siemens, Sony, Toyota, Volvo, and Verizon. CASA ran 17 successful E-Leader conferences in Asia and Europe, <http://www.g-casa.com>. He traveled to 75 countries for international business. His profile contacts can be found at <http://www.linkedin.com/pub/donald-hsu/0/15/A14>.

ED-208: Starting Out in Home Automation, Neil Cherry, Tech Mahindra

Abstract: A discussion and demonstration of the current state of Home Automation; commercial products, some Open Source hardware and software, and how home automation might be used with the Internet of Things. Neil will be demonstrating control of some common household items using a doll house, Arduino like ChipKIT boards, a Raspberry Pi and various Home Automation controllers.

Bio: Neil Cherry is the author of Wiley's *Linux Smart Homes For Dummies*. He has been working with computers, computer electronics, and software since 1978; has been playing with X10 since 1982; and began automating his home in 1992 when a friend gave him an X10 computer interface. Neil started the Linux Home Automation web site

ED-207: Tribute to Ralph Baer (1922-2014), Inventor of the Home Video Game Console, Scott Marshall, Retired

Abstract: "Suppose we attach a box to a television set so that, instead of just watching TV, you participate and play games on it?" asked Ralph Baer, who in 1966 built his "brown box" that ignited the video game revolution. This talk focuses on his remarkable life and singular achievement, as well as a broad brush summary of video game history that covers the two eras of electronic gaming -- before Baer, and after Baer. Scott will follow this talk with another focusing on his own work and on his philosophy of video game character intelligence and machine consciousness.

Bio: Scott Marshall studied filmmaking (directing) at the School of Visual Arts in New York. He's a retired video game designer and programmer, was a Senior Technical Associate at RCA for their home computer and interactive video projects, a software engineer for Educational Testing Service's image processing department, and architect of the audio system for Sarnoff/SRI's digital cinema project.

ED-206: Workshop on How to Create Real-Time Videos for Live Streaming, Orlando and Maria Rivera, DigitalSummit.TV

Abstract: Live video lets you stream huge amounts of music, news, and cultural events, and interact with your fans in a way that is not possible with regular pre-recorded videos. Join us for an exciting workshop that details how to set up and execute a live event. You will learn how to select cameras, video encoders and video back-end services, choose the right video formats and players, target the various devices to stream to from mobile to desktops, and combine live multi-cameras and pre-recorded videos into one show. We will demonstrate low to mid level cost solutions that you can implement without breaking your budget.

Bio: Orlando Rivera (DigitalStory.TV) has developed VOD and Live Streaming solutions for QVC, AT&T, InterCall Inc (largest conference and collaborations service provider in the world), BMG, and Mobile development for the IBM Watson Center. Orlando has also been a Visual Effects Supervisor for indie feature films, shorts, 3D animations (www.FranknSon.com) and games for the iPad, iPhone and Corp business IOS apps (DigitalSummit.TV).

Bio: Maria T. Rivera is the Associate Director, at The Steven L. Newman Real Estate Institute, Baruch College, CUNY. She is a member of the National Speakers association and holds a MA in Adult Education and Training. Maria has extensive experience in education technology, web, video production and directing. Maria has developed e-learning and corporate videos for Prudential, Realogy, Medco, J&J, AT&T, CALC, Chubb, Long Island University, The Berkeley School, and Dover Business College.

ED-113: Two New Raspberry Pi Engineering Tutorials and Demos: 1) Remote Raspberry Pi Wireless Video Event Cameras; and 2) Low-Cost RF Spectrum Analyzer and Panoramic Adapter, Joe Jesson, TCNJ

Abstract: Joe Jesson describes two of his favorite Raspberry Pi applications. He will step through the architecture of the two designs, their detailed hardware, embedded software, and environmental engineering, prototype steps, and finally present live demonstrations of each prototype. Demos will show the low-cost IR internal image chip (Omnivision) and a second USB camera streaming live video from the internet. Joe has been prototyping this hardware for a very low-cost vehicle accident and video logging system. You will see how to meet IP67 and SAE ratings for the fielded prototypes. He will also introduce the application of OpenCV, an open-source video classification library available for the Pi. The Spectrum Analyzer project takes advantage of a low-cost (\$9!) 2Mb I/Q European TV tuner and the advances in Software-Defined Radio libraries for the Pi. As an amateur radio fan, I use this Spectrum Display to visualize the band openings and radio propagation conditions of the 6- and 10 meter bands. The format will be tutorial and encourage budding engineers to experiment and have fun with RasPi hardware and software (Python and C) as the RasPi provides a fun and inexpensive Linux embedded system prototyping environment!

Bio: Joe Jesson is CEO of RFSigint Inc, a NJ Internet-of-Things (IoT) consulting firm, and CTO of Assurennet, a start-up Telematics company based in Oyster Bay, LI. Joe also is a Visiting Electrical/Computer Engineering Professor at TCNJ. He was co-founder and CTO of a new GE business unit, Asset Intelligence, where he received the GE Edison Award at GE R&D in 2007, and has held Technical Management positions at Xact Technology, Amoco Oil R&D, BP Corporate, CNA, and Engineering Positions at Motorola and MTS at the University of Chicago's Jones & Searle Research Labs.

ED-112: Workshop on Fixing Your Hopelessly Broken Vintage Computer, Corey Cohen, MARCH

Abstract: A detailed class in the fundamentals of assessing, diagnosing, and repairing vintage computers. Never just plug it in! Learn about safety issues, the right tools, power supplies, common issues, where to acquire parts, and much more.

Bio: Corey Cohen is lead technician of MARCH. His specialty is repairing early hobby computers. His favorite computer is the Apple I. He relieves stress by kickboxing.

ED-109: Intro to the Vintage Computing Hobby, Jeffrey Brace, MARCH

Abstract: Did you know there's an active and organized hobby for vintage computer collecting? Learn what's collectible, how to get involved, where to find resources, and much more.

Bio: Jeffrey Brace is vice-president of MARCH. He enjoys all sorts of vintage computing. His favorite systems are the early Commodore models. He is also a black belt at Taekwondo.

ED-105: OOP University, C++Advanced Features, Scot Jenkins, ACGNJ

Abstract: C++ is an object-oriented programming (OOP) language created by Bjarne Stroustrup at AT&T Labs that was first introduced to developers in 1985. It is one of the most popular programming languages and is usually the language of choice for applications such as systems software, device drivers, embedded software, and high-performance client/server applications. This in-depth seminar will cover some of the advanced features of C++. Four topics will be presented: overloaded operators, templates, exception handling, and namespaces. Each of these topics will be individually discussed and sample code will be reviewed to demonstrate how each feature is implemented. There will also be an introduction to the Standard Template Library.

Bio: See ED-105 at 10:15 am

***** 1:30 pm to 2:25 pm *****

ED-115: Microsoft Office 2015, David Soll, Omicron Development, LLC.

Abstract: The latest released version of the Microsoft Office suite is 2013, but with a new version of the Windows operating system looming on the horizon, a new version of Office is being previewed with Windows 10. David Soll will demonstrate the new version of the Office suite and will compare and contrast the expected changes to Office.

Bio: David Soll is the CTO and President of Omicron Development, LLC. He is responsible for the overall technical direction and technology solution set provided by Omicron. David received a BS in Electrical Engineering from Drexel University and has been working in Information Technology for over 30 years, more than 25 of them with Omicron. He is currently the Vice-Chair of the Princeton Central Jersey Section of the IEEE and is a senior member of the IEEE. David is also the past Chairman and a current board member of the Princeton chapter of the ACM and a senior member of ACM. He has a long history of innovation working with Microsoft and Microsoft technologies. He has worked with virtually every version of operating system that Microsoft has produced, and has given many presentations on them. He is a recipient of the prestigious IEEE Region 1 Award and is the founder and Chairperson of the IEEE/ACM Information Technology Professional Conference (ITPC) held in conjunction with TCF.

ED-211: The Future Of Mobile Cloud Computing, Ziad Nossire, Univ. of Bridgeport

Abstract: Mobile cloud computing is a concept that combines many fields of computing. The foundation of this computing is the need for the delivery of services, software over the internet to reduce cost, and increasing storage capacity. We have surveyed existing works in this mobile platform. We gave a definition by providing an overview of the particular models of mobile cloud applications, as far as highlighting the research challenges in this area including mobile cloud computing security. Our recommendations for mobile cloud computing explain better how cloud computing can help build more powerful applications.

Bio: Ziad Nossire received a B.Sc. in Management Information Systems from Al-Albyat Univ, Jordan and a Master of Science Information and

Communication Technology from Utara University, Malaysia. In 2012 Ziad joined the Univ. of Bridgeport as a Ph.D. student in Computer Science and Engineering. He was an Assistant Lecturer in Science and Technology at Irbid-Al-Balqa Applied Univ, Jordan and at Njran and Al-Emma Mohamed Ben Saoud Univ, Saudi Arabia. His research interest is in the area of cloud computing, mobile, wireless communications and networks

ED-209: Invention, Patents and Manufacturing, Mark Streitman, Evolutionary Thought, LLC

Abstract: You have an idea and think it would make a great product. What's the next step? Lots of people have spent lots of money trying to chase the American dream of being an inventor and making it big. We all know the stories of Franklin, Edison, Bell, Marconi, Fleming, Carlson, Jobs, and Zuckerberg. But how can you do it too? There are also a lot of people out there willing to take your money and give you almost nothing in return. Learn how to tell a good idea from a bad one and find out about the biggest pitfalls for inventors. We'll talk about prototyping, testing, product engineering, manufacturing (or publishing software), marketing and patents. Learn the lessons from someone that's been through it all.

Bio: Mark Streitman is a software architect and professional speaker. He has an expertise in computers, science and business. He designs and implements real-time business engines for search and other customized needs. Mark also speaks on business technology and has had his own business, Evolutionary Thought, since 2004. He created the world's first Portable Foucault Pendulum. Mark has also achieved an advanced certification in Toastmasters, is an excellent cook and chess player.

ED-208: Social Media Opportunities: From Intern to VP of Strategy, Donald Hsu, Dominican College

Abstract: Social Media sites are hot such as Chive, Facebook, Flickr, Foursquare, Google+, LinkedIn, MySpace, Pinterest, Reddit, Shutterstock, Tumblr, Twitter, YouTube and hundreds of new ones being created every week, if not every day! You have 400 friends on Facebook, 500 followers on Twitter, 300 on LinkedIn; can you monetize this friendship? Yes, you can. Companies are hiring in Social Media for Intern, Associate, Coordinator, Analyst, Consultant, Mobile Marketing, Client Manager, Community Manager, Relation Manager, SEO Specialist, Strategist, Director, Vice President, and CEO. Salaries range from \$35,000 to \$120,000 per year. Using 10001 zip code, Monster.com generated 73 jobs; CareerBuilder.com had 638 openings; Dice.com 985 jobs; and Indeed.com 6,146 jobs; all in Social Media. Donald Hsu will give you specific details on how you can join a corporation as a Social Media expert. Don't miss this talk!

Bio: see ED-209 at 12:25 pm.

Room ED-207: The Continuing Evolution of Dedicated Console Computer Games, Roger W. Amidon, DX Computer Company

Abstract: The world of video games has been evolving lately due to the abundance of smartphones with the computing ability to compete with the hand held computer gaming systems of just a few years ago. Think "Angry Birds." For serious gamers, the dedicated console is still king, with XBOX, SONY and Nintendo at the forefront. We will demonstrate Nintendo's latest entry: The "Wii-U." Finally, Nintendo now has a full HD 1080p video platform - and we will demonstrate the latest Zelda game developed for that machine! We will also discuss the convergence of video games with robotic warfare systems. In the future, will we have our own personal "Drones" to protect us from evil? Will our police force be using robotic drones to watch over certain areas of our cities? Stay tuned...

Bio: Roger has been giving a talk every year of TCF and, along with his sons and nephews, has been involved with video games since 1990. Although not currently actively developing games, he still maintains a strong interest in the technology.

ED-113: Google Gadgets, Barry Burd, Drew University

Abstract: Sure, Google is the search-engine giant. But Google also sells hardware. Most recently, Google's arsenal of personal computing devices includes phones, tablets, watches (a.k.a. "wear"), Google Glass, and the 3-D scanning devices named Project Tango. In this session, I demo the use of these devices. (And if you want to try one out yourself, come to the session!)

Bio: See ED-109 at 10:15 am

Room ED-109: Abacus to the iPhone: The history of mobility, Evan Koblentz, MARCH

Abstract: "Hey you with the iPhone!" Put it down for a little while, and we'll tell you wild-yet-true stories of how mobile computing came to be. You'll gain a whole new respect for the power in your pocket.

Bio: See ED-112 at 10:15 am

ED-107: Arduino Workshop - continued - Arduino on network

ED-105 Getting Start with Java, Ken Rimple (for Mike Redlich), ACGNJ

Abstract: Java is an object-oriented programming (OOP) language created by James Gosling at Sun Microsystems that was first introduced to developers in 1995. It is one of the most popular programming languages for client/server web applications and there are many scripting languages (e.g., Clojure, Groovy) that seamlessly interact with Java. Much of Java's language syntax was derived from the C++, but as James Gosling once stated, "Java is C++ without guns, knives, and clubs." This presentation will introduce the Java programming language, provide a brief overview, how to get started, review some Java keywords, introduce the Java class mechanism, and review a small, working Java application. Since knowledge of OOP is vital in the development of robust applications, the OOP paradigm will also be introduced along with a brief discussion of the advantages of OOP over structured programming. An example Java application will be used to demonstrate how the attributes of OOP are utilized within Java classes.

Bio: Ken Rimple is Training Services director for Chariot Solutions. He has a long background in consulting and teaching in Java and related frameworks and APIs, and currently teaches his AngularJS JavaScript courses, as well as Spring, Tomcat, and Maven courses. He is the co-author of Spring Roo in Action from Manning. He serves as technical co-chair of the Philly Emerging Tech conference, and is the host of the Chariot TechCast and Chariot Developer News podcast series. You can find him on twitter as @krimple.

***** 2:35 pm to 3:30 pm *****

ED-115: Featured Keynote Speaker, Approaching Singularity, Dan Rosenbaum (see front page)

***** 3:40 pm to 4:35 pm *****

ED-115: Introduction to Windows 10, David Soll, Omicron Consulting

Abstract: Microsoft has decided to skip from Windows 8 directly to Windows 10. Microsoft has released a preview of Windows 10, which shows many new and changed features from previous versions of Windows. Windows 10 is designed to be run on PCs, tablets, and phones and is configurable to best fit the form-factor that it is running on. David Soll will demonstrate and talk about Windows 10, its new features and capabilities. He will also discuss some of the "Cloud" integration that is going into the new operating system. This talk is designed to help the attendee better understand if a move to Windows 10 at this time is worthwhile or if it is preferable to continue with a previous version of Windows.

Bio: see Room ED-115 at 1:30 pm

ED-211: User Interface for the Physically Impaired, Martine Nezerwa, Jean Coppola, Keith Wright, Stefan Howansky and Tony Chen

Abstract: The IT sector has over the last 20 years, experienced a boom in users of ages, backgrounds, and nationalities. The adoption of technology has been well received by younger populations. Technology is rapidly changing and contributing to the older population being left behind and losing interest as apps get more complicated. In addition to the difficulties of older adults, there is a growing population diagnosed with cognitive impairments and loss of dexterity. However, there are few technologies (especially mobile apps) that have been developed for these groups. This presentation focuses on the development of mobile apps for people with Multiple Sclerosis, a disabling disease of the central nervous system. An added aim is to raise the awareness of developers to consider people with cognitive and physical impairments.

Bio: Jean F. Coppola holds a BS in CS, MS in Telecom, MS in CS, and PhD in Computing Technology in Education with 19 years experience in academia. She has > 80 presentations and > 30 articles in service-learning, inter-generational computing, smart e-classrooms, gerontechnology, & critical thinking. She has also advised student teams winning the NY Campus Compact Carter Academic Service Entrepreneur in recognition of service-learning excellence and numerous personal awards. Her current research focuses on service-learning/civic engagement and gerontechnology. Martine Nezerwa is a graduate student, while Keith Wright, Stefan Howansky and Tony Chen are undergraduate students at the Seidenberg School of Computer Systems and Information Technology of Pace University.

ED-209: What is your data strategy?, Siva Krishnaje, Information Builders

Abstract: Enterprises are collecting, transforming, and storing data much faster, and larger than they used to do. Data is collected not only from the internal applications, but from various different external sources as well. In

general, data is available in silos, redundant, inconsistent, or not available to access in a meaningful way. Data is critical to do the day to day business, and make important business decisions. Hence, enterprises require a data strategy to collect, transform, cleanse, and store it for using for the business purposes. This session will help the audience to find an industry trend data strategy and figure out how it can be used for their day to day purposes.

Bio: Siva Krishnaje is a Director of Product Management and manages the iWay adapter products for Information Builders. Siva and his team manage the application adapters, e-business adapters, and OEM partnership with Oracle and SAP. He started as a product manager with Information Builders in 2004 and held management positions within the iWay Software product division. Prior to working with Information Builders, Siva implemented customer relationship management (CRM) and supply-chain management (SCM) solutions for fortune 500 companies.

ED-208: Robotics - An Introduction, Seung-yun Kim, TCNJ

Abstract: Robotics is an emerging multi-disciplinary area in Science, Technology, Engineering, and Mathematics (STEM) that combines mechanical, electrical and computer engineering in the design and construction of robots to perform specific tasks. It requires a working knowledge of electronics, software, and mechanics. Before the coining of the term robotics, there was interest in ideas similar to robotics, namely automata and androids, dating as far back as 400 BC. Robots are used in industrial, military, exploration, home, academic, and research applications. Although the appearance and capabilities of robots vary vastly, all robots share the features of electronic sensors, and a movable structure under some form of autonomous electronics, computer, and software control. This presentation introduces the element of robotics with examples of uses and future trends. It is further enhanced through many multimedia based examples of the state of the art and further directions of research.

Bio: Seung-yun Kim is an Assistant Prof. of Electrical/Computer Engineering, and First Year Engineering Program Coordinator at TCNJ. Seung-yun earned a Ph.D. and master's degree in electrical engineering at the Univ. of Dayton and a bachelor's degree in electrical engineering at Saint Louis Univ. His research interests include collaborative computing, human-centered systems, mobile and ubiquitous computing, and intelligent robotics, and he has been awarded over \$300,000 in grants. He has published over 20 papers and serves as a reviewer for the NSF and several technical journals. He has extensive experience in outreach to K-12 programs, promoting STEM education.

ED-207: Video Game Enemy Intelligence, Machine Consciousness, and the Turing Test, Scott Marshall, Retired

Abstract: The 2012 Turing Test for Computer Game Bots was won by a team from the University of Texas at Austin, and a doctoral student from Romania. We discuss the philosophy of machine intelligence and consciousness from its first inception in the age of mechanical automata through the questions posed by Turing with his test, and where can it go from here. Can machines be truly conscious? How would we know if they are? Do we want them to be? Can they, and should they, be more than conscious? Why limit ourselves to just imitating, or duplicating, human consciousness?

Bio: see ED-207 at 12:25 pm

ED-206: Lego Mindstorms Robotics, Douglas Ferguson, ACGNJ

Abstract: LEGO Mindstorms is a robotics platform based on the well known LEGO building sets. Doug will present an introduction to using the set and a demonstration of LEGO Mindstorms using the included software and Microsoft's Robotics Studio.

Bio: Doug Ferguson is a computer hobbyist who loves learning about new technologies. Having taught himself to program in high school, he continues to explore numerous areas of computers including video editing, web design, visualization and robotics. In the real world Doug is employed by EMC where he is a Sr. Support Engineer for the Ionix IT operations software product.

ED-113: Computer Anamorphic Art - From Leonardo to Modern Times, William Silverman, Brookdale Computer Users Group

Abstract: This visually exciting and mentally stimulating slide show presentation is about the little known topic of anamorphic art. Topics covered include what anamorphic art is, its history, how you can use your computer to create your own anamorphic self portrait, and how to make your own reflectors to see the results. On hand will also be actual samples and set-ups, related books, and more.

Bio: William Silverman is a retired high school teacher who taught chemistry and physics, along with most of the other branches of science. After retiring he went back to school to earn an associate degree in computer graphics. Presently he is a trustee of the Brookdale Computer Users Group

(www.BCUG.com) and the head of their computer graphics workshop. He is also a Master Gardener and member of the Deep Cut Orchid Society.

ED-112: Restoring Vintage Electronics: Radio, TV, Audio, Jonathan Allen, RF Electronics Consulting

Abstract: Restoring and repairing vintage electronics requires knowledge and techniques quite different from those used to service their modern counterparts. This talk will concentrate on vacuum tube radio and television receivers, and audio equipment, but the methods are also applicable to other apparatus of that era. We will include suggestions on how to procure service manuals and find replacements for the original parts, and once those parts are in hand, how to install them. Especially important are the precautions one must observe to protect both the equipment and oneself.

Bio: Jonathan Allen received his Ph.D. in physics from Washington University in St. Louis with a dissertation on optical measurement of atmospheric aerosols. While his career has been dedicated mainly to photovoltaic R&D, he has also taught electronics engineering and worked in RF power systems design. He is currently an independent consultant. For the past two years, Jonathon has worked as a volunteer, restoring and documenting the Sarnoff Collection at TCNJ.

ED-109: Altair, BASIC, and teletype demo, Corey Cohen, MARCH

Abstract: The MITS Altair 8800 is the most famous of the hobby computers from the mid-1970s. You'll learn the basics of how it works and what it can do. Prepare to be amazed as we demonstrate how you would bootstrap this machine and then load BASIC into it, on a paper tape, by using a teletype machine. You will never again complain about your PC's slow boot-up time.

Bio: see Room ED-112 at 12:25 pm

ED-107: Life Before Computerized Drafting, Paul Bergsman, Author and Independent Consultant

Abstract: Before computers, there were a variety of tools to aid the draftsman in creating mechanical drawings. Paul Bergsman has been collecting examples of each tool. Included in his collection are tools for drawing circles, for creating lines in ink, for generating an ellipse, and for dividing a line into multiple segments of equal length. If you are under forty, this will be an introduction into the world of the draftsmen. For many of you that are over forty, you can take a trip back in time. And, if you have a unique drafting tool you might bring it in and contribute to the discussion.

Bio: Paul Bergsman is the author of "Controlling the World with Your PC," which remained in print for eleven years! He now consults and is a retired Philadelphia Public School Teacher, where he taught Industrial Arts for over 25 years. In addition, he holds a U.S. patent for an electronic door lock.

ED-105: Java Advanced Features, Ken Rimple (for M. Redlich), ACGNJ

Abstract: Java is an object-oriented programming (OOP) language created by James Gosling at Sun Microsystems that was first introduced to developers in 1995. It is one of the most popular programming languages for client/server web applications and there are many scripting languages (Clojure, Groovy) that seamlessly interact with Java. Much of Java's language syntax was derived from the C++, but as James Gosling once stated, "Java is C++ without guns, knives, and clubs." This in-depth seminar will cover some of the advanced features of Java. Four main topics will be presented: Java Beans, exception handling, generics, and Java Database Connectivity (JDBC). Each of these topics will be individually discussed and sample code will be reviewed to demonstrate how each feature is implemented.

Bio: see Room ED-105 at 1:30 pm

AT SARNOFF MUSEUM RWH 2ND FLOOR

3D Printing Demo and Design Tutorial, Rebecca Mercuri, Notable Software, Inc. and Kevin Meredith, Drexel University

Abstract: This short (drop-in: arrive any time when our demo is scheduled) tutorial will enable you to create object designs that can be printed. The fundamentals needed to get started with FreeCAD, an open source parametric 3D modeling program, will be overviewed. Participants will learn how to design a small medallion that will then be printed using the MakerBot Replicator. Bring a USB thumbdrive and we will provide the software. If you also bring a laptop, you can work on your design and bring it back to our demo area for printing.

Bio: Rebecca Mercuri, Ph.D. is the President and Lead Forensic Expert at Notable Software, Inc. <www.notablesoftware.com>. Rebecca holds a Ph.D. from the Univ. of Pennsylvania, and has done post-doctoral research at Harvard.

Bio: Kevin Meredith is a Mechanical Engineering major at Drexel Univ.

ED = New Education Building RWH = Roscoe West Hall FH = Forcina Hall BSC = Brower Student Center

ED-115

ED-103

ED-105

ED-107

ED-109

ED-112

ED-113

ED-206

ED-207

ED-208

ED-209

ED-211

Satur-day	Microsoft	IT-PC	Computer Business	Applica-tions	Games & Technology	Education & STEM	Technology & Hardware	History of Computing	App Dev./History	Arduino Workshop	OOP University	Amateur Radio	Exhibits
10:15am to 11:10am	Bitcoin - Currency for the Future or the Past? <i>D. Libes</i>	Software Development Apprenticeships <i>K. Thomas & C. Jeros</i>	Naming Structures for Improved Digital Organization <i>J. LeMasney</i>	Workshop Introduction to Programming in the Cloud <i>P. DePasquale * in FH-403 (Forcina Hall Computer Lab)</i>	GPS Secrets Updated <i>C. Lewart</i>	Getting Started: PCs/tablets, Internet & Digital Photography <i>H. Hintz</i>	Satellite Reception Made Easy <i>M. Filippi</i>	Eighty Years of Computer Hobbyists <i>E. Koblenz</i>	Workshop on Developing Apps for Android <i>B. Burd</i>	Introduction to Arduino (Presentation)	Introduction to OOP Design Principles <i>S. Jenkins</i>	Ham Cram 101 Ham Radio License Exam Preparation Course	Special Exhibits and Demos
11:20am to 12:15pm	Workshop on Keeping Your Computer Bug Free & Tips on Windows 8.1 <i>R. Kessler</i>	HIPAA Legal Rules <i>T. Alshugran</i>	Stock Market Timing Using Neural Networks <i>D. Fishbein</i>	<i>P. DePasquale * in FH-403 (Forcina Hall Computer Lab)</i>	TCF@50 <i>A. Katz</i>	Updated Guide to Best Web Sites & Search Engines <i>E. Kaplan</i>	How to Build a Scalar Network Analyzer <i>G. Heron</i>	ENIAC and the First TCF Key-note Speech <i>E. Koblenz</i>	Hands-On with Arduino (Limited Space; Bring Your Laptop!)	Getting Started with C++ <i>S. Jenkins</i>	Getting Started with Java <i>K Rimple</i>	Ham Cram Session begins at 9:00am and goes to 1:00pm in RWH-2nd floor Quadcopter Demo	3D Printer & Design Demos by IEEE-PCJS from 11:00am to 1:00pm in RWH-2nd floor Quadcopter Demo
12:25pm to 1:20pm	New Breed of Spreadsheet Computing <i>E. Alda</i>	Future of Mobile Cloud Computing <i>Z. Nossire</i>	Internet Job\$\$\$ <i>D. Hsu</i>	Get Started in Home Automation <i>N. Cherry</i>	Ralph Baer - Inventor of the Home Video Game <i>S. Marshall</i>	Workshop on Creating Real-Time Streaming Live Video <i>O. & M. Rivera</i>	Two Raspberry Pi Tutorials and Demos <i>J. Jesson</i>	Workshop Fixing Broken Vintage Computers <i>C. Cohen</i>	Introduction to the Vintage Computing Hobby <i>J. Brace</i>	Advanced C++ <i>S. Jenkins</i>	Getting Started with Java <i>K Rimple</i>	Exam given at 1:30pm Walk-in Real Exam given at 3:40pm	Digital Photo Exhibit Historic Computers from MARCH Clubs
1:30pm to 2:25pm	Microsoft Office in 2015 <i>D. Sol</i>	Future of Mobile Cloud Computing <i>Z. Nossire</i>	Invention, Patents and Manufacturing <i>M. Streifman</i>	Social Media Opportunities <i>D. Hsu</i>	Evolution of Console Computer Games <i>R. Amidon</i>	Workshop on Creating Real-Time Streaming Live Video <i>O. & M. Rivera</i>	Google Gadgets <i>B. Burd</i>	Abacus to the iPhone <i>E. Koblenz</i>	Arduino on the Network	Exam given at 1:30pm Walk-in Real Exam given at 3:40pm	Conducted by the Museum of Historic Radio Club <i>www.n2re.org</i>	Tour the Sarnoff Museum of Historic Technology (9am-3pm in RWH)	
2:35pm to 3:30pm													
3:40pm to 4:35pm	Introduction to Windows 10 <i>D. Sol</i>	User Interface for the Physically Impaired <i>J. Coppola et al</i>	What is Your Data Strategy <i>S. Krishnaje</i>	Robotics - An Introduction <i>S. Kim</i>	Games, Intelligence, Consciousness & the Turing Test <i>S. Marshall</i>	LEGO MINDSTORMS Robotics <i>D. Ferguson</i>	Computer Anamorphic Art <i>W. Silverman</i>	Restoring Vintage Electronics <i>J. Allen</i>	Before Computer Drafting <i>P. Bergsman</i>	Advanced Java <i>K Rimple</i>			

Featured Keynote Speaker: Dan Rosenbaum, Technology Journalist, Wearable Tech Insider ,
will talk on "Approaching Singularity" in Room ED-115

WiFi Connect: SSID: Guest-at-TCNJ3
Login: guest1030 Password: 5ugaju2y

